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| 10/596,086 | 05/30/2006 | Dominique Jean-Pierre Mabire | PRD-2121 USPCT | 1676 |
| 27777 | 7590 | 07/06/2010 | | |
| PHILIP S. JOHNSON JOHNSON & JOHNSON ONE JOHNSON & JOHNSON PLAZA NEW BRUNSWICK, NJ 08933-7003 | | | | |
| EXAMINER | | | | |
| JABLE, CECILIA M | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1624 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/596,086

Applicant(s)

MABIRE ET AL.

Examiner

Cecilia M. Jaisle

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6, 12, 13, 15, 16, 27, 28 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 16, 28 and 31-33 is/are allowed.
- 6) ☒ Claim(s) 2, 6 and 12 is/are rejected.
- 7) ☒ Claim(s) 3, 6, 13, 15 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED OFFICE ACTION

Withdrawal of Rejections Under 35 USC 112

Responsive to Applicants' remarks and amendments, the rejection under 35 USC 112, paragraph 2, has been withdrawn.

Rejection Under 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

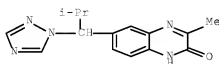
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

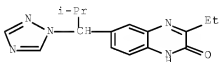
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freyne, US 5151421, issued 19920929 (already of record), describing, *inter alia*, RN 130347-01-2, 2(1H)-Quinoxalinone, 3-methyl-6-[2-methyl-1-(1H-1,2,4-triazol-1-yl)propyl]-



and

RN 130347-78-3, 2(1H)-Quinoxalinone, 3-ethyl-6-[2-methyl-1-(1H-1,2,4-triazol-1-yl)propyl]-



as retinoate metabolism and aromatase inhibitors.

The presently claimed compounds are alkyl homologs and/or position isomers of the Freyne compounds and are well suggested for the same utility.

It would have been obvious to one of ordinary skill in the art when the present invention was made to modify the Freyne compounds to prepare alkyl homologs and position isomers thereof. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous and position isomeric compounds are expected to possess similar properties. It has been held that compounds that are structurally homologous and/or

position isomeric to prior art compounds are *prima facie* obvious, absent a showing of unexpected results.

An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties.

In re Payne, 203 USPQ 245, 254 (CCPA 1979); *In re Papesch*, 137 USPQ 43 (CCPA 1963); and *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1991) (discussed in MPEP § 2144) for an extensive case law review pertaining to obviousness based on close structural chemical compound similarity. See also MPEP § 2144.08, ¶ II.A.4(c). Compounds that are homologs (compounds differing regularly by successive addition of the same chemical group, e.g., by CH₃- or -CH₂- groups) and/or position isomers (compounds differing by an adjacent or near adjacent functional group), as here, are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 195 USPQ 426 (CCPA 1977).

Response to Remarks of 05-25-2010

Applicants argue:

The compounds of the present application have PARP inhibiting activity. Among other activities, PARP inhibitors are useful as chemosensitizers or radiosensitizers, viz., compounds that increase the sensitivity of cells to ionizing radiation or to chemotherapy. There is no disclosure or suggestion that the compounds disclosed in [Freyne] are PARP inhibitors.

The fact that the Freyne compounds do not teach or suggest PARP inhibiting activity is of no moment in overcoming the rejection under 35 USC 103(a). The presently claimed compounds are alkyl homologs and/or position isomers of the Freyne compounds, are well suggested as retinoate metabolism and aromatase inhibitors, and

that valid expectation has not been refuted on this record.

It would have been obvious to one of ordinary skill in the art when the present invention was made to modify the Freyne compounds to prepare alkyl homologs and position isomers thereof. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous and position isomeric compounds are expected to possess properties similar to the properties of the Freyne compounds as retinoate metabolism and aromatase inhibitors. It has been held that compounds that are structurally homologous and/or position isomeric to prior art compounds are *prima facie* obvious, absent a showing of unexpected results. See the detailed case law discussion above.

Objected Claims

Claims 3, 6, 13, 15 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowed Claims

Claims 4, 16, 28 and 31-33 are allowed. Following is an examiner's statement of reasons for allowance.

Claims 2, 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freyne, discussed in detail above, as retinoate metabolism and aromatase inhibitors. However, the compounds and compositions of claims 4, 16, 28 and 31-33

have substituents that are neither anticipated nor rendered obvious by Freyne. In addition, claims 4, 16, 28 and 31-33 are neither anticipated nor rendered obvious by any of the prior art of record, whether taken individually or in any combination.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cecilia M. Jaisle whose telephone number is 571-272-9931. The examiner can normally be reached on Monday - Friday; 8:30 am through 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application is assigned is 571-273-8300.

Information regarding status of an application may be obtained from Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private or Public PAIR. Status information for unpublished applications is available from Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. If you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cecilia M. Jaisle/
Examiner, Art Unit 1624

**/James O. Wilson/
Supervisory Patent Examiner, AU 1624**